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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,973	04/01/2004	Kevin Duesman	501184.02	1677

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EXAMINER

NGUYEN, HUNG

ART UNIT	PAPER NUMBER
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2851

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/816,973

Applicant(s)

DUESMAN ET AL.

Examiner

Hung Henry V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30 and 32-39 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/7/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “reticles 118 and 119” (see page 5, line 46) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 30, 32-38 are rejected under McCullough et al (U.S.Pat. 6,628,372).

With respect to claim 30, McCullough et al disclose a photolithographic assembly comprising all of the limitations of the instant claim such as: a light source (12); a support (16) adapted to support the photoreactive layer proximate the light source; a first photolithographic mask (22) positioned between the light source and the support, the first photolithographic mask having a patterning portion for patterning a first portion of the photoreactive layer; and a second photolithographic mask (24) positioned between the light source and the support, the second photolithographic mask having a patterning portion for patterning a second portion of the photoreactive layer.

As to claim 32, it is disclosed that the second photolithographic mask (24) is positioned in alignment with the first photolithographic mask (22).

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As to claim 33, McCullough et al disclose a robotic handler (14, 32) for positioning the first and second photolithographic masks (22, 24) between the light source (12) and the support (16).

With respect to claims 34-35, McCullough et al disclose the first mask and the second mask have blocking portions/peripheral portions for preventing exposure of the second portion/reexposure portion of the photoreactive layer.

As to claims 36 and 37, although, McCullough et al do not expressly disclose the memory element portion and the periphery portion of the first and second patterning portion. These elements are seen to be inherent teachings of the patterning portions and they must be present for first and second masks of McCullough to function as intended.

As to claim 38, McCullough et al disclose a lens (18) positioned between the light source (12) and the support (16).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCullough et al (U.S.Pat. 6,628,372) in view of Fujimoto (U.S.Pat. 6,522,389).

As to claim 39, McCullough et al disclose a photolithographic assembly comprising substantially all of the limitations of the instant claim including an exposure parameter modifier

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(13) positioned between the light source (12) and the support (16) for modifying the exposure if needed (see col.2, lines 49-51). McCullough et al do not expressly disclose the modifier being a condenser. Fujimoto discloses a lithographic assembly having a condenser (103) positioned between the light source (101) and the support (108). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the exposure modifier (13) of McCullough by the condenser (103) as taught by Fujimoto to generate a parallel beam. The purpose of doing so would have been to obtain an uniform exposure intensity and whereby the quality of the images is greatly improved.

Allowable Subject Matter

6. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record either alone or in combination, neither discloses nor makes obvious the combination of a photolithographic assembly comprising a light source, a support, a first mask, a second mask, wherein at least part of the second photolithographic mask is positioned between the first photolithographic mask and the support, as recited in the instant claim of the present application.

Prior Art Made of Record

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Isohata et al (U.S.Pat. 4,878,086) and Pierrat (U.S.Pat. 6,040,892) disclose lithographic devices and have been cited for technical background.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hung Henry V Nguyen
Primary Examiner
Art Unit 2851

hvn
7/25/07